CLAIMS

We claim:

Sub A16

1. A data access arrangement for use in a communications device, the data access arrangement circuit comprising:

network interface circuitry;

a diode bridge having a first pair of terminals for coupling data signals to a network connection and a second pair of terminals coupled to the network interface circuitry; and

a high voltage clamping device disposed between the terminals of the second pair of terminals.

2. The data access arrangement of claim 1, the communications device having a chassis ground, further comprising:

a first capacitor coupled between the chassis ground and one of the terminals of the second pair of terminals; and

a second capacitor coupled between the chassis ground and the other terminal of the second pair of terminals.

3. The data access arrangement of claim 2, further comprising:

at least one additional high voltage clamping device disposed between the terminals of the first pair of terminals.

4. The data access arrangement of claim 2, the communications device having a chassis ground, further comprising:

a third capacitor coupled between the chassis ground and one of the terminals of the first pair of terminals; and

a fourth capacitor coupled between the chassis ground and the other terminal of the first pair of terminals.

5. The data access arrangement of claim 1, wherein the network connection is an RJ-11 jack for coupling to a telephone line.

6. The data access arrangement of claim 1, wherein the high voltage clamping device is a metal oxide varistor.

7. The data access arrangement of claim 1, wherein the high voltage clamping device is a SIDACTor™.

8. The data access arrangement of claim 1, the high voltage clamping device having a maximum specified voltage rating between 410 volts and 455 volts at a maximum specified current rating between 5 amps and 50 amps.

9. The data access arrangement of claim 1, further comprising:

system side circuitry configurable to communicate with a host system; and

a high voltage isolation barrier having a first side and a second side, the first side coupled to the network interface circuitry and the second side coupled to the system side circuitry.

10. The data access arrangement of claim 9, the high voltage isolation barrier comprising a capacitor.

11. The data access arrangement of claim 1 operating in substantial compliance with an xDSL modem standard.

12. The data access arrangement of claim 1 operating in substantial compliance with a home networking protocol.

13. A data access arrangement for use in a communications device having a chassis or earth ground, the data access arrangement circuit comprising:

network interface circuitry;

a diode bridge having a first pair of terminals for coupling data signals to a network connection and a second pair of terminals coupled to the network interface circuitry; and

a first high voltage clamping device disposed between the chassis ground and one of the terminals of the second pair of terminals; and

a second high voltage clamping device coupled between the chassis ground and the other terminal of the second pair of terminals.

14. The data access arrangement of claim 13, the communications device, further comprising:

a first capacitor coupled between the chassis ground and one of the terminals of the second pair of terminals; and

a second capacitor coupled between the chassis ground and the other terminal of the second pair of terminals.

15. The data access arrangement of claim 14, wherein the high voltage clamping device is a metal oxide varistor.

16. A communications device comprising:

host processing circuitry;

system side circuitry coupled to the host processing circuitry;

network interface circuitry;

a voltage isolation barrier having a first side and a second side, the first side coupled to the network interface circuitry and the second side coupled to the system side circuitry;

a diode bridge having a first pair of terminals for coupling data signals to a network connection and a second pair of terminals coupled to the network interface circuitry; and

a high voltage clamping device disposed between the terminals of the second pair of terminals.

17. The communications device of claim 16 having a chassis ground, further comprising:

a first capacitor coupled between the chassis ground and one of the terminals of the second pair of terminals of the diode bridge; and

a second capacitor coupled between the chassis ground and the other terminal of the second pair of terminals of the diode bridge.

18. The communications device of claim 16, wherein the high voltage clamping device is a metal oxide varistor.

19. The communications device of claim 16, wherein the network connection is an RJ-11 jack for coupling to a telephone line.

20. The communications device of claim 16, the high voltage isolation barrier comprising a capacitor.